In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1- 6 (Canceled).

7 (Currently Amended). A method of evaluating the effectiveness of an antiviral therapy of an HIV-infected patient comprising:

(i) collecting a sample from an HIV-infected patient;

(ii) determining in said sample each of the following nucleic acids:

a) a first nucleic acid encoding an HIV reverse transcriptase comprising ~~at least one mutation chosen from~~:

1) at least one mutation chosen from the group consisting of 88E, 101H, 101N, 101P, 101Q, 101T, 103H, 103S, 179I, 179E, 181V, 190E, 190S, and 190T; or

2) a combination of at least two mutations 103R and 179D, ~~or~~

3) ~~combinations of 1) and 2).~~

in which the presence of said first nucleic acid ~~at least one mutation~~ correlates with resistance to at least one Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI);

b) a second nucleic acid encoding an HIV reverse transcriptase comprising at least one mutation chosen from the group consisting of 69S-[S-S], 184G, ~~184L~~, 215 V, 44D, 44A, and 118I,

in which the presence of said second nucleic acid ~~at least one mutation~~ correlates with resistance to at least one Nucleoside Reverse Transcriptase Inhibitor (NRTI); and

c) a third nucleic acid encoding an HIV protease comprising ~~at least one mutation chosen from~~:

1) at least one mutation 88T, provided said third nucleic acid does not comprise a combination of mutations L10I, M46I, L63P, V77I, I84V, and N88T; or

2) a combination of at least two mutations 33F and 90M, ~~or~~

3) ~~combinations of 1) and 2),~~

in which the presence of said third nucleic acid ~~at least one mutation~~ correlates with resistance to at least one Protease Inhibitor (PI)~~; and~~

~~d)wherein the antiviral therapy includes nucleoside reverse transcriptase inhibitors (NRTIs) which are one or more drugs of the group selected from zidovudine (ZDV), didanosine (ddI), zalcitabine (ddC), stavudine (d4T), lamivudine (3TC) and abacavir (ABC); non-nucleoside reverse transcriptase inhibitors (NNRTIs) which are one or more drugs of the group selected from nevirapine (NVP), delavirdine (DLV) and efavirenz; and protease inhibitors (Pis) which are one or more drugs of the group selected from saquinavir (SQV), ritonavir (RTV), indinavir (IDV), nelfinavir (NFV), amprenavir (APV) and ABT-378.~~

Claims 8-30 (Canceled)

31 (New). A method of evaluating the effectiveness of a Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI) as an antiviral therapy of an HIV-infected patient, comprising:

(i) collecting a sample from an HIV-infected patient;

(ii) determining whether the sample comprises at least one nucleic acid encoding an HIV reverse transcriptase comprising:

a. at least one mutation chosen from the group consisting of 88E, 101H, 101N, 101P, 101Q, 101T, 103H, 103S, 179I, 179E, 181V, 190E, 190S, and 190T; or

b. a combination of at least two mutations 103R and 179D; and

(iii) using the presence of said at least one nucleic acid of step (ii) to evaluate the effectiveness of said antiviral therapy, wherein the presence of said at least one

nucleic acid correlates with resistance to at least one Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI).

32 (New). The method according to claim 31 wherein said at least one nucleic acid encoding an HIV reverse transcriptase comprising a combination of at least two mutations 103S and 101P.

33 (New). A method of evaluating the effectiveness of a Nucleoside Reverse Transcriptase Inhibitor (NRTI) as an antiviral therapy of an HIV-infected patient, comprising:

(i) collecting a sample from an HIV-infected patient;

(ii) determining whether the sample comprises at least one nucleic acid encoding an HIV reverse transcriptase comprising at least one mutation chosen from the group consisting of 69S-[S-S], 184G, 215 V, 44D, 44A, and 118I; and

(iii) using the presence of said at least one nucleic acid of step (ii) to evaluate the effectiveness of said antiviral therapy, wherein the presence of said at least one nucleic acid correlates with resistance to at least one Nucleoside Reverse Transcriptase Inhibitor (NRTI).

34 (New). The method according to claim 33 wherein said at least one nucleic acid encoding an HIV reverse transcriptase comprising at least one mutation chosen from the group consisting of 44D, 44A, and 118I, and said HIV reverse transcriptase further comprises at least one additional mutation chosen from the group consisting of 41L, 67N, 69D, 70R, 210W, 211K, 214F, 215Y, 215F, 219Q and 219E.

35 (New). The method according to claim 33 wherein said at least one nucleic acid encoding an HIV reverse transcriptase comprising a combination of at least two mutations, said combination is chosen from the group consisting of 1) 118I and 44D; 2) 118I and 44A; and 3) 118I, 44A and 44D.

36 (New). The method according to claim 33 wherein said at least one nucleic acid encoding an HIV reverse transcriptase comprising at least one mutation 69S-[S-S], and said HIV reverse transcriptase further comprises at least one additional mutation chosen from the group consisting of 62V, 210W, and 215Y.

37 (New). A method of evaluating the effectiveness of a Protease Inhibitor (PI) as an antiviral therapy of an HIV-infected patient, comprising:

(i) collecting a sample from an HIV-infected patient;

(ii) determining whether the sample comprises at least one nucleic acid encoding an HIV protease comprising:

a. at least one mutation 88T, provided said at least one nucleic acid does not comprise a combination of mutations L10I, M46I, L63P, V77I, I84V, and N88T; or

b. a combination of at least two mutations 33F and 90M; and

(iii) using the presence of said at least one nucleic acid of step (ii) to evaluate the effectiveness of said antiviral therapy, wherein the presence of said nucleic acid correlates with resistance to at least one Protease Inhibitor (PI).

Respectfully submitted,
/Myra H. McCormack/

Myra H. McCormack
Reg. No. 36602
Attorney for Applicant(s)